

A NEW SPECIES OF VERBESINA (SECT. VERBESINARIA) FROM DURANGO, MEXICO

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ABSTRACT: Verbesina corral-diazii, a new species from near Santiago Papasquiaro Durango, is described. It is closely related to V. longifolia of the sect. Verbesinaria. These are in turn related to V. scotiodonta and V. daviesiae, the entire complex being centered in northern Mexico. A key to the taxa and a distribution map is provided.

Recent collections by Dr. Richard Worthington and students in Durango Mexico have revealed an undescribed species of Verbesina belonging to the section Verbesinaria (Robinson and Greenman, 1899). In pursuit of its identification I was obliged to borrow materials, including types, of V. longifolia and V. scotiodonta from GH. I am grateful to that institution for such favors and to my colleague, M. C. Johnston, for the Latin diagnosis. Corral Diaz is a student at the University of Texas at El Paso working under the direction of Dr. Worthington.

The type material of Verbesina corral-diazii includes at least two leaf-forms: the holotype possessing very broad, nearly clasping, ovate-lanceolate leaves and an isotype with very narrow, non-clasping, linear-lanceolate leaves, except for the venation, very much like V. longifolia. The indument, venation, bicolored leaves and broad foliaceous bracts mark all of the types and serve to distinguish those from V. longifolia. Nevertheless, Verbesina corral-diazii is closely related to the widespread, more northern, V. longifolia, as well as the relatively localized V. scotiodonta. This three taxa are in turn related to the recently described V. daviesiae (Turner, 1983). All of these have similar habits, leaves and achenes. The following key and discussions will serve to distinguish among them.

1. Involucre 5-7 mm high, not subtended by foliaceous bracts; plants of Sierra Madre Oriental, Coahuila and Nuevo Leon ----- V. daviesiae
1. Involucre 8-15 mm high, subtended by conspicuous foliaceous bracts; plants of Sierra Madre Occidentale Chihuahua and Durango [2].
  2. Leaves bicolored, densely pubescent on both surfaces with appressed soft grey hairs; outer foliaceous involucre bracts mostly 5-25 mm wide ----- V. corral-diazii
  2. Leaves not bicolored, variously pubescent with erect or acicular, rough hispid, trichomes; outer foliaceous involucre bracts mostly 2-5 mm wide [3] -----
3. Leaves ovate-lanceolate, 4-6 times as long as wide, the margins closely serrate (3-6 serrations/cm); venation of blade seemingly pinnate, without a strong lateral closure ----- V. scotiodonta

3. Leaves linear-lanceolate, 7-15 times as long as wide, the margins remotely serrate (1-2 serrations /cm); venation of blade closed, with a well-developed anastomising vein system along the margin ----- V. longifolia

VERBESINA CORRAL-DIAZII, B. L. Turner, sp. nov.

V. longifolia *accedens* sed foliis biocoloribus, pilis mollis adpressis, phyllariis exterioribus latis foliiformibus.

Perennial herb to 1.5 m high. Stems terete, sulcate, densely pubescent with soft grey appressed hairs. Leaves ovate- to linear-lanceolate, 10-15 cm long, 0.4-3.0 cm wide, sessile or nearly so; blades bicolor, dark green above, whitish-gray beneath, pubescent on both surfaces with appressed soft hairs, more so beneath, the margins remotely denticulate (spaced 0.5-1.5 cm) to nearly entire. Heads 1-5 in a terminal capitulescence, the latter developing secondary branches bearing single heads and often over-topping the primary stem. Heads 1.3-1.5 cm high, over-topped by the conspicuous foliaceous outer phyllaries, the peduncles 3-15 cm long. Involucral bracts ovate-lanceolate to narrowly lanceolate, 2-3 seriate, the outer-most foliaceous series 1.5-4.0 cm long, 0.4-1.2 cm wide. Receptacle conical, 4-5 mm high, 4-6 mm across; chaff lanceolate, 8-12 mm long, 1.5-2.0 mm wide, appressed pubescent throughout, acute to acuminate. Ray florets 11-13, yellow, neuter; ligule 15-25 mm long, 4-6 mm wide; tube pubescent, ca. 2 mm long, often with 1.3 staminodia. Disk florets numerous; corollas yellow, appressed pubescent, tubes ca. 1 mm long; limbs ca. 5 mm long, 5-lobed the lobes acute, ca. 0.75 mm long. Anther sacs black, ca. 2 mm long, the ovate appendages yellow. Style branches slender with short, hispid, cuspidate appendages. Achene flattened, oval-elliptic, 5-7 mm long, 2.5-3.5 mm wide sparsely puberulent to glabrate, the margins with a narrow wing ca. 0.1 mm wide; pappus absent.

TYPE: MEXICO: DURANGO: Municipio Santiago Papasquiaro, 18.5 km WNW (by air) from Santiago Papasquiaro (25° 04' 45" N x 105° 35' 40" W), 2720 m, "on steep N slope just above bottom of ravine, plants occasional", 25 Aug 1983, R. Corral Diaz (650) and R. D. Worthington 11395. (holotype TEX; isotypes TEX, UMX).

VERBESINA DAVIESIAE, B. L. Turner, *Southwestern Naturalist* 27: 345. 1982.

In my original description I related this taxon to Verbesina hypomalaca. Subsequent study has led me to believe that it is equally close, if not closer to V. oreophila W.&S. (not discussed further here) and the V. longifolia complex considered below. Verbesina daviesiae has the eglandular leaves and general achene structure (except for a pappus) of the latter, but differs in its more numerous, smaller heads and efoliose involucre. In short it appears to stand somewhere between V. longifolia and V. hypomalaca.

VERBESINA LONGIFOLIA (A. Gray) A. Gray, *Proc. Amer. Acad. Arts* 19: 12. 1883.

Actinomeris longifolia A. Gray, *Pl. Wright*. 2: 89. 1853.

TYPE: MEXICO: SONORA: "Mountains east of Santa Cruz", Sep 1851, Wright 1234 (holotype GH!).

This is a well-known, relatively wide spread species, as shown in the following figure:



Mexican localities for the collections mapped are based upon specimens at GH and TEX; citations are on file at the latter institution. One collection at GH (Nelson 4473, Mountains near Miquihuana, state of Tamaulipas) is surely a label error.

VERBESINA SCOTIODONTA, Blake, Contr. Gray Herb. 54: 16. 1918.

Gymnoloma serrata Rob. & Greenm., Proc. Boston Soc. Nat. Hist. 29: 99. 1899. Not G. serrata Cav. TYPE: MEXICO: CHIHUAHUA: Mt. Mohinora, 1 Sep 1898, Nelson 4891 (Tectotype here selected, GH!; isolectotypes GH!, US).

This taxon is exceedingly close to V. longifolia and is distinguished primarily by leaf-shape and serrations along its margins. As noted by Blake, it is named for "the dark glandular teeth of the leaves" which are closely spaced upon relatively broad blades. Considering the leaf variation found in only a few plants from the type locality of V. corral-diazii (noted above) it is not unlikely that V. scotiodonta will be reduced to varietal status or perhaps forma. However, a single recent collection from the vicinity of the type locality (north-facing conifer slope, Sierra Mohinora, 7500 ft, 14-15 Oct 1959, Correll & Gentry 23131, LL) displays exceptionally broad, pinnately veined leaves and a closely-set dentation suggesting that the variation concerned is, indeed, regionally contained.

#### Literature Cited

- Robinson, B. L. and J. M. Greenman. 1899. Verbescina. Proc. Amer. Acad. Arts 39: 534-566.
- Turner, B. L. 1982. New taxa in Verbescina (Sect. Verbescinaria) from north-central Mexico. Southwestern Naturalist 27: 345-346.